

R	G	V	L	P	T	F	P	D	D	A	K	L	T	K	I	E	T	18
CGC	GGT	GTC	CTG	CCC	ACC	TTC	CCG	GAT	GAC	GCC	AAA	CTT	ACA	AAG	ATC	GAG	ACC	54

←

L	R	F	A	L	N	Y	I	W	A	L	T	Q	T	L	R	I	A	36
CTG	CGC	TTC	GCC	CTC	AAC	TAC	ATT	TGG	GCA	CTG	ACT	CAG	ACG	CTG	CGC	ATA	GCG	108

CIG3'_2

←

D	H	S	F	Y	G	P	E	P	P	V	P	C	G	E	L	G	S	54
GAC	CAC	AGC	TTC	TAC	GGC	CCC	GAG	CCC	CCT	GTG	CCC	TGT	GGG	GAG	CTG	GGA	AGC	162

←

CIG3'_1

P	G	G	G	S	S	G	D	W	G	S	I	Y	S	P	V	S	Q	72
CCG	GGA	GGG	GGC	TCC	AGC	GGC	GAC	TGG	GGC	TCT	ATC	TAC	TCC	CCA	GTT	TCC	CAA	216

←

CIG3'_0

A	G	S	L	S	P	T	A	S	L	E	E	F	P	G	L	Q	V	90
GCT	GGT	AGC	CTG	AGC	CCC	ACA	GCC	TCA	TTG	GAG	GAG	TTC	CCT	GGC	CTG	CAG	GTG	270

P S S P S C L L P G T L V F S D F L 108

CCC AGC TCC CCA TCC TGT CTG CTC CCG GGC ACC CTG GTG TTC TCA GAC TTC TTG 324

* TGA agggcccaaacaggccctggcggtggcgctggcagaaaggagggagtcagagctgtctgaaatg 394

gaaggtagtgaggactcgagcatctcgcccccttctggctttcattagtcaggtccctgatttaaccagga 466

ttcgacagttcccttgctgtgcgtgcacaaaggacattcaggctgatctctttaaccctcctcagt 538

gtggccacctcaaactcccgtccaagcagaggagagccgtagcactaaatagttggagactcccatactt 610

cctggtagactccggccctttcaaattctggggcctccaaccaccgcttctccagagtgacctaattccagt 682

gttgcgtcttacactgactgctttgttccata 715

FIG 1

	basic	Helix1	
Relax	S H H K K A N D R E R N R M H N L N S A L D A L R G V U L E T		112
Math-1	Q H H L A A N A R E R R R M H G L N H A F D Q L H N V I E S		185
Neurod	L K R M K A N A K E R N R M H G E N A A L D N L R K U V E C		58
Mash1	A A V A R R N E H E R N R V K L V N L G F A T E R E H V E N		142

	Loop	Helix2	
Relax	F P D D A K L T K I E T L R F A H N Y I W A E T Q T E R I A		142
Math-1	F N N D K K L E S K Y E T L Q M A Q I Y I N A L S E L E Q T P		215
Neurod	Y S K T Q K L E S K I E T E R L A K N Y I W A L S E I R R S G		88
Mash1	G A A N K K E S K R V E T L R S A V Q Y I R A E Q Q L E D E H		172

FIG 2

cctcgacccattctctttctcccttgggctgggcaactccaaaggcgccctgcagctc 72
 agctgaacttggcgaccagaagcccgctgagctcccacggccctcgctcatcgctctattttt 144
 cgccggtagaaaggtaatattttggagcccttcgagggacggcaggaaagaggatccctgacccagcg 216
ggggactgggaggatggctgttttgtttttcccaactagcctcggaatcccgactggccgtgacggact 288

	M	T	P	Q	P	S	G	A	P	
<u>caaacttacccttccctctgaccggcgccgg</u>	ATG	ACG	CCT	CAA	CCC	TCG	GGT	GCG	CCC	348
T	V	Q	V	T	R	E	T	E	R	27
ACT	GTC	CAA	GTG	ACC	CGT	GAG	ACG	GAG	CGG	402
E	V	T	C	P	T	S	A	P	P	45
GAA	GTG	ACC	TGC	CCC	ACG	TCC	GCC	CCG	CCC	456
C	A	E	A	E	E	G	G	C	R	63
TGC	GCA	GAG	GCG	GAA	GAG	GGA	GGC	TGC	CGA	510
R	R	G	G	R	S	R	P	K	S	81
CGG	CGC	GGG	GGA	CGC	AGC	CGG	CCT	AAG	AGC	564
R	S	R	R	K	K	A	N	D	R	99
CGG	AGT	CGG	CGA	AAG	AAG	<u>GCC</u>	<u>AAC</u>	<u>GAC</u>	<u>CGC</u>	618
N	S	A	L	D	A	L	R	G	V	117
<u>AAC</u>	<u>TCG</u>	<u>GCA</u>	<u>CTG</u>	<u>GAC</u>	<u>GCC</u>	<u>CTG</u>	<u>CGC</u>	<u>GGT</u>	<u>GTC</u>	672
K	L	T	K	I	E	T	L	R	F	135
<u>AAG</u>	<u>CTC</u>	<u>ACC</u>	<u>AAG</u>	<u>ATC</u>	<u>GAG</u>	<u>ACG</u>	<u>CTG</u>	<u>CGC</u>	<u>TTC</u>	726
										
T	Q	T	L	R	I	A	D	H	S	153
ACT	CAA	ACG	CTG	CGC	ATA	GGG	GAC	CAC	AGC	780
										
P	H	C	G	E	L	G	S	P	G	171
CCG	CAC	TGC	GGG	GAG	CTG	GGC	AGC	CCA	GGC	834
L	Y	S	P	V	S	Q	A	G	S	189
CTC	TAC	TCC	CCA	GTC	TCC	CAG	GCT	GGC	AGC	888
E	R	P	G	L	L	G	A	T	S	207
GAG	CGA	CCC	GGG	CTG	CTG	GGG	GCC	ACC	TCT	942
L	A	F	S	D	F	L				214
CTG	GCT	TTC	TCA	GAT	TTT	CTG	tgaaaggacctgtctgcgtggctgtgggtgctaaggtaa	1006		
gggagagggagggagccggagccgtagagggtggccgacggcggccctcaaaagcacttgcatttt	1078									
gcttctccctagctgaccctggccggccaggcctccacggggcggttaggctgggttcatccccggccc	1150									
tccgagccgcggccaaacgcacgcaacccttgctgctgcccgcgcgaaagtggcattgcaaagtgcgtcattt	1222									
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gccgcccaccgtcttgggtcgccctaccctcactca	1330									

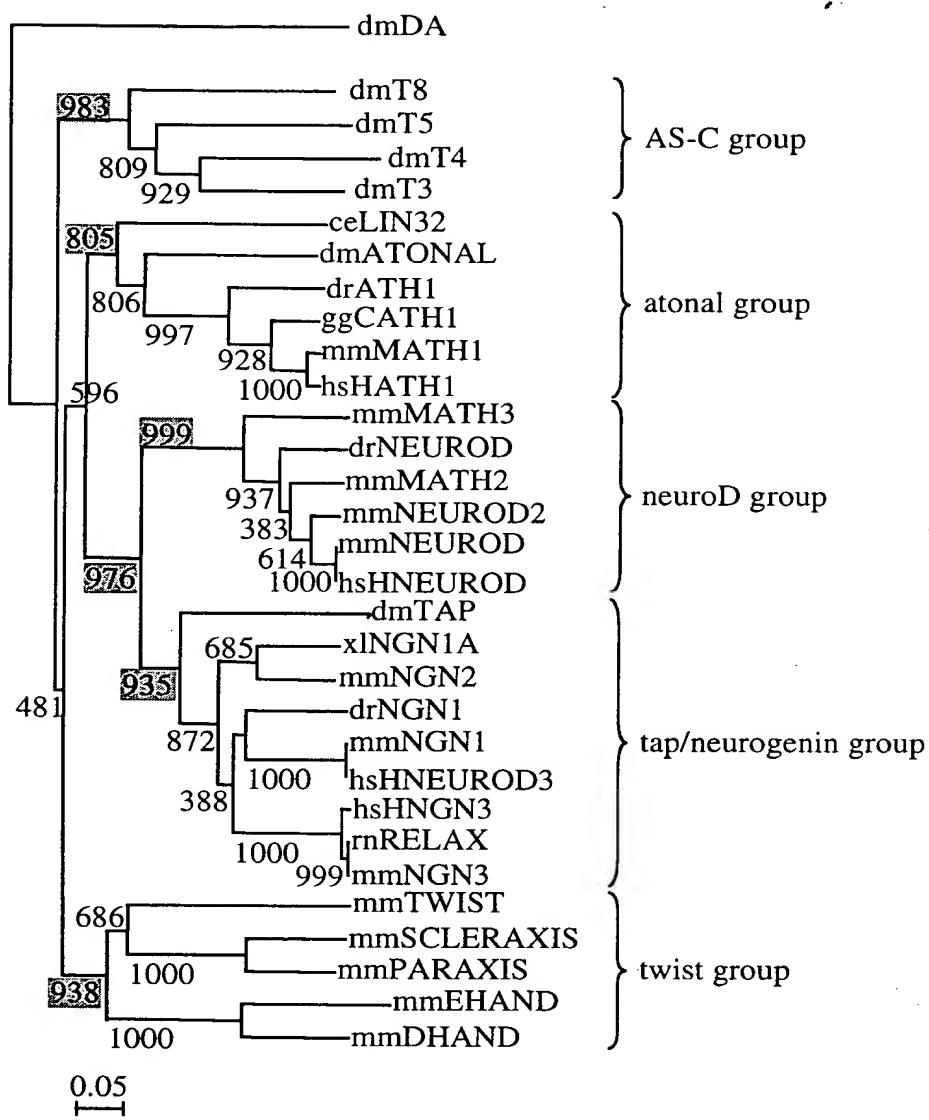
neuroD3	-----	P R I T C I S D D C A	G D G D E E G	R O A A	G P P A P A R R	P N I	R A	E P G N	
ngn1	-----	P P T I S D D C S	N D S D E E G	R P A T	G S V P A R R	P A L	G A	N P G N	
ngn3	-----	P P D A	P Q P Q P Q	P G A D H	T P P P L	P R D C S I A P	G D R		
relax	-----	P P D A P	Q Q Q Q Q Q	P G A D H	T P P P L	P R D C S I A	G D R		
hngn3	-----	P O P S G A P	R E E R S E	R S P R A	C P T A P P P	P R	P G N C A A I E G G R		
ngn2	-----	E K E K E E E V	M I L G S A	P A A T P P S	S A D E E E E	E R R P G C	A R G O R G	E A E O G V O G P A	G G G I R P G R

neuroD3	D D E Q	R P P P R E Q	S E P S	H S L R	T V V V	T P P P	A A	R S P P P S I	R K N Q
ngn1	D E E Q	R R R R R R R G	R A R R	H S L R R	R R V E	P D D D	A D	R S V P P D D	R K N Q
ngn3	G T S R K	R A R R G G R N R P	R P R P	R R R R R R	R R R R R R	P D D D	A D	R C G V P P D D	R K N Q
relax	G T S R K	R A R R G G R N R P	R P R P	R R R R R R	R R R R R R	P D D D	A D	R C G V P P D D	R K N Q
hngn3	G A P R K	R A R R G G R P P	R P R P	R R R R R R	R R R R R R	P D D D	A D	R C G V P P D D	R K N Q
ngn2	G L M H E	R K R P S R R I V	R G R G	Q R I K K	R R R L K	N R R R	A D	R E V P P D D	R K N Q

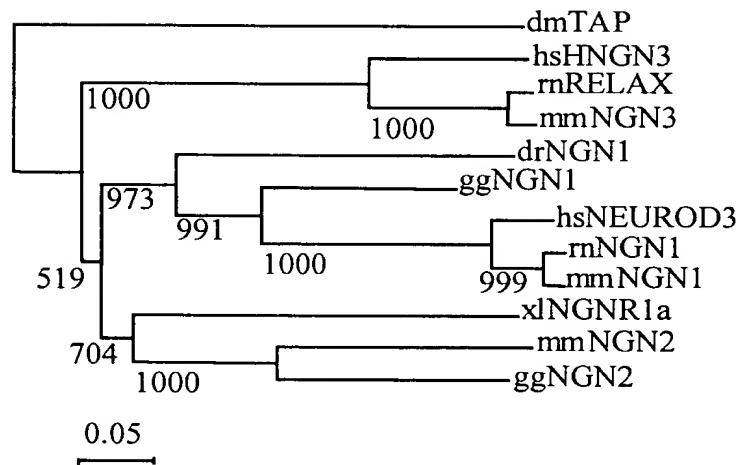
neuroD3	*****	*****	*****	*****	*****	*****	*****	*****	*****			
ngn1	A P	D C G	P G G G R	S R	I L P P	P	L P G P P P A	D A E	G G A	P S D P	S P I A	I D
ngn3	A P	D C G	P G G S R	S R	I L P P	P	L P G P P P A	D T E	G G A	P S D P	S P I A	I D
relax	A P	D C G	P P P P	P P	P P P P	P	G G G G	S N G D	G G I	P G N	P L I M	
hngn3	A P	D C G	P P P P	P P	P P P P	P	G G G G	S S G D	G G I	P G N	P L I M	
ngn2	A P	C G A G G G	G G L F	S R L	S P G A A	G A	S D P P P S	P P G D	G G I	S S N	P S C I	L S P

neuroD3	***	R P G	P S	P L P K D	G T P	P I P
ngn1	GP G	P S	P G L P K D	T P	I P	
ngn3	P G	P S	P G A	T P	I P	
relax	P G	P S	P G A	T P	I P	
hngn3	P G	P G	S A	S P G	D	
ngn2	A S - P G S O N D	PP P P E K R	D P H L P	R D		

a



b



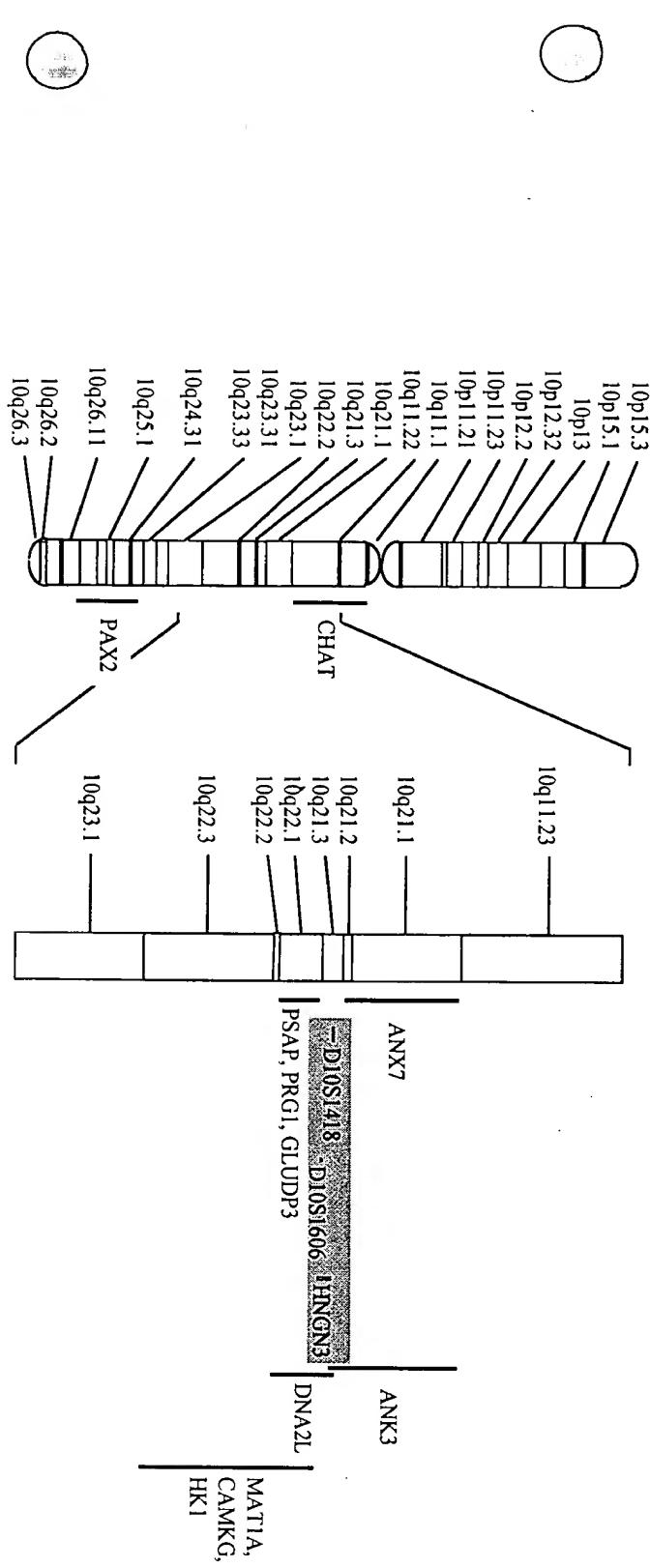


FIG 6

